

O P E

OCT 11 2002

PATENT &amp; TRADEMARK OFFICE

Approved for use through 10/31/2002 OMB 651-0031  
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)		Complete if Known																													
		<table border="1"> <tr> <td><b>Application Number</b></td> <td colspan="4">09/945512</td> </tr> <tr> <td><b>Filing Date</b></td> <td colspan="4">August 30, 2001</td> </tr> <tr> <td><b>First Named Inventor</b></td> <td colspan="4">Forbes, Leonard</td> </tr> <tr> <td><b>Group Art Unit</b></td> <td colspan="4">2812</td> </tr> <tr> <td><b>Examiner Name</b></td> <td colspan="4">Richard A. Booth</td> </tr> </table>					<b>Application Number</b>	09/945512				<b>Filing Date</b>	August 30, 2001				<b>First Named Inventor</b>	Forbes, Leonard				<b>Group Art Unit</b>	2812				<b>Examiner Name</b>	Richard A. Booth			
<b>Application Number</b>	09/945512																														
<b>Filing Date</b>	August 30, 2001																														
<b>First Named Inventor</b>	Forbes, Leonard																														
<b>Group Art Unit</b>	2812																														
<b>Examiner Name</b>	Richard A. Booth																														
Sheet 1 of 2		Attorney Docket No: 01303.027US1																													

### US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
RB	US-4412902	11/01/1983	Michikami, O., et al	204	192	06/18/1982
	US-4780424	10/25/1988	Holler, M. A.	437	29	09/28/1987
	US-5691230	11/25/1997	Forbes, L.	437	62	09/04/1996
	US-5350738	09/27/1994	Hase, Takashi, et al	505	473	11/27/1992
	US-5801401	09/01/1998	Forbes, L.	257	77	01/29/1997
	US-5852306	12/22/1998	Forbes, L.	257	315	01/29/1997
	US-5981350	11/09/1999	Geusic, J. E., et al	438	386	05/29/1998
	US-6025627	02/15/2000	Forbes, L., et al	257	321	05/29/1998
	US-6124729	09/26/2000	Noble, W. P., et al	326	41	02/27/1998
	US-6135175	10/24/2000	Gaudreault, P., et al	144	4.1	10/09/1998
	US-6141238	10/31/2000	Forbes, L., et al	365	145	08/30/1999
	US-6323844	11/27/2001	Yeh, Fu-Kuo, et al	345	166	08/11/1997
RB	US-6424001	07/23/2002	Forbes, L., et al	257	315	02/09/2001

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T <sup>2</sup>

### OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
RB		ARYA, S., et al, "Conduction Properties of Thin Al <sub>2</sub> O <sub>3</sub> Films", <u>Thin Solid Films</u> , 91, (1982), pp. 363-374	
		DIPERT, BRIAN et al, "Flash Memory Goes Mainstream", <u>IEEE Spectrum</u> , 30, (October, 1993), pp. 48-52	
		ELDRIDGE, J.M. et al, "Growth of Thin PbO Layers on Lead Films", <u>Surface Science</u> , 40, (1973), pp. 512-530	
		ELDRIDGE, J.M. et al, "Measurement of Tunnel Current Density in a Metal-Oxide-Metal System as a Function of Oxide Thickness", <u>Proc. 12th Intern. Conf. on Low Temperature Physics</u> , (1971), pp. 427-428	
		GREINER, J.H., "Josephson Tunneling Barriers by rf Sputter Etching in an Oxygen Plasma", <u>Journal of Applied Physics</u> , Vol. 42, No. 12, (November, 1971), pp. 5151-5155	
		GREINER, J.H., "Oxidation of lead films by rf sputter etching in an oxygen plasma", <u>Journal of Applied Physics</u> , Vol. 45, No. 1, (January, 1974), pp. 32-37	
		GRIMBLOT, J. et al, "I. Interaction of Al Films with O <sub>2</sub> at Low Pressures", <u>J. Electrochem. Soc.</u> , Vol. 129, No. 10, pp. 2366-2368, October, 1982	
		GRIMBLOT, J. et al, "II. Oxidation of Aluminum Films", <u>J. Electrochem. Soc.</u> , Vol. 129, No. 10, (October, 1982), pp. 2369-2372	
RB		GUNDLACH, K. et al, "Logarithmic Conductivity of Al-Al <sub>2</sub> O <sub>3</sub> -Al Tunneling	

EXAMINER

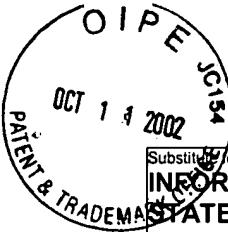
*Richard A. Booth*

DATE CONSIDERED

12/15/02

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached



Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE    STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i> <b>Application Number</b> 09/945512 <b>Filing Date</b> August 30, 2001 <b>First Named Inventor</b> Forbes, Leonard <b>Group Art Unit</b> 2812 <b>Examiner Name</b> Richard A. Booth	
Sheet 2 of 2		Attorney Docket No: 01303.027US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>RB</i>		Junctions Produced by Plasma and by Thermal Oxidation", <u>Surface Science</u> , 27, (1971), pp. 125-141	
		HODGES, D.A. et al, <u>Analysis and Design of Digital Integrated Circuits</u> , McGraw-Hill Book Company, 2nd Edition, (1988), pp. 394-396	
		HURYCH, Z., "Influence of Non-Uniform Thickness of Dielectric Layers on Capacitance and Tunnel Currents", <u>Solid-State Electronics</u> , Vol. 9, (1966), pp. 967-979	
		KUBASCHEWSKI, O. et al, <u>Oxidation of Metals and Alloys</u> , Butterworths, London, (1962), pp. 53-63	
		LUAN, H.F. et al, "High Technology Ta <sub>2</sub> O <sub>5</sub> Gate Dielectrics with T <sub>ox,eq</sub> <10Å", <u>IEDM</u> , (1999), pp. 141-144	
		MA, T. P., et al, "Tunneling Leakage Current in Ultrathin (<4 nm) Nitride/Oxide Stack Dielectrics," <u>IEEE Electron Device Letters</u> , Vol. 19, No. 10, pp. 388-390, October, 1998	
		MASUOKA, F. et al, "A 256K Flash EEPROM using Triple Polysilicon Technology", <u>IEEE International Solid-State Circuits Conference, Digest of Technical Papers</u> , (1985), pp. 168-169	
		MASUOKA, F. et al, "A New Flash EEPROM Cell using Triple Polysilicon Technology", <u>International Electron Devices Meeting, Technical Digest</u> , San Francisco, CA, (1984), pp. 464-467	
		MORI, S., "Reliable CVD Inter-Poly Dielectrics for Advanced E&EEPROM", <u>Symposium on VSLI Technology, Digest of Technical Papers</u> , (1985), pp. 16-17	
		PASHLEY, R. et al, "Flash Memories: the best of two worlds", <u>IEEE Spectrum</u> , (December, 1989), pp. 30-33	
		POLLACK, S. et al, "Tunneling Through Gaseous Oxidized Films of Al <sub>2</sub> O <sub>3</sub> ", <u>Transactions of the Metallurgical Society of AIME</u> , Vol. 233, (March, 1965), pp. 497-501	
		SIMMONS, J., "Generalized Formula for the Electric Tunnel Effect between Similiar Electrodes Separated by a Thin Insulating Film", <u>Journal of Applied Physics</u> , Vol. 34, No. 6, (1963), pp. 1793-1803	
<i>RB</i>		SZE, S., <u>Physics of Semiconductor Devices, Second Edition</u> , John Wiley & Sons, New York, (1981), pp. 553-556	

EXAMINER

*Richard A. Booth*

DATE CONSIDERED

*12/15/02*